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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/724,471  | 11/26/2003  | Johnny Zhong         | 15436.131.1         | 9866             |
| 7590  | 03/06/2006  |                      | EXAMINER            |                  |
| WORKMAN NYDEGGER<br>1000 Eagle Gate Tower<br>60 East South Temple<br>Salt Lake City, UT 84111 |             |                      | STEIN, JAMES D      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      |                     | 2874             |

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/724,471             | ZHONG ET AL.        |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | James D. Stein         | 2874                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 June 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2-23 is/are pending in the application.
- 4a) Of the above claim(s) 22 and 23 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 2, 4-15 and 18-21 is/are rejected.
- 7) Claim(s) 3, 16 and 17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 November 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

This Office Action is responsive to the amendment filed on 12/13/05, which has been fully considered and entered. Claims 2 and 4-6 have been amended and claim 1 was cancelled. Claims 22-23 are withdrawn. Claims 2-23 are pending in the application.

The indicated allowability of claims 2, 7-15 and 18-21 in the previous Action is withdrawn in view of the newly discovered reference, [USPAT 6,198,857] to Grassis et al. (“Grassis”). Rejections based on the newly cited reference follow.

### ***Election/Restrictions***

Claims 3, 16 and 17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species (species I), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 06/06/05. The Examiner has determined that claims 3, 16, 17, 22 and 23 belong to species I, and claims 2, 4-15 and 18-21 belong to species II. An action on the merits of species II follows.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 5-9, 12-14 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Grassis, which discloses a related optical device. Fig. 6 of Grassis shows an optical fiber add/drop patch cord comprising an add/drop component 110 disposed in a casing 116, the optical add/drop component 110 comprising an optical substrate an optical substrate (132 in fig. 3A); a first thin film (48 in fig. 3A) formed on a first end of the optical substrate (glass, col. 6 line 13, col. 11 line 26); and

    a second thin film (60 in fig. 3A) formed on a second end that opposes the first end; end an input fiber 118 coupled to the casing 116 and optically coupled to the optical add/drop component 110;

    a drop fiber 124 coupled to the casing 116 and optically coupled to the optical add/drop component 110t;

    an add fiber 128 coupled to the casing 116 and optically coupled to the optical add/drop component 110; and

    an output fiber 142 coupled to the casing 116 and optically coupled to the optical add/drop component 110;

    wherein the first thin film is configured to allow at least one wavelength of an optical signal from the input fiber to pass through the first thin film towards the drop fiber while reflecting other wavelengths of the optical signal to the second thin film (shown in figures); and

    the second thin film is configured to reflect the other wavelengths of the optical signal towards the output fiber while allowing at least one wavelength to pass through the thin film from the add fiber towards the output fiber 134 (see entire document, at least col. 12 lines 3-37).

It is noted that the input fiber 118, add fiber 128, output fiber 142, and drop fiber 124 are respectively coupled to the casing 116 via ports 120, 129, 142 and 126. Because Grassis does not teach otherwise, the said fibers must inherently be coupled to the casing 116 in a permanent manner. The optical add/drop patch cord also includes a plurality of collimating elements 122 for ensuring light is not dispersed within the component 110.

It is noted that for examination purposes, the recitations of “patch cord” has not been given patentable weight, as said recitation only appears in the preambles of the claims. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Even if, for sake of argument, the recitations of “patch cord” in the preambles were given patentable weight, the arrangement shown in fig. 6 of Grassis could function as a “patch cord”, as it is self-contained, portable, and the functional elements are enclosed within the casing 116.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grassis.

With regard to claims 10 and 20, in addition to the rejection of claims 8 and 14 above, the claimed invention has been disclosed and previously discussed except for the various fibers to be *detachably* coupled to their respective ports. As was discussed above, said fibers must inherently be permanently coupled to the to their respective ports, as Grassis does not teach a removable connection. However, it would have been very obvious at the time of the invention to one of ordinary skill in the art to ensure said connections were detachable, or removable (i.e. using optical connectors) in order to facilitate the replacement of a faulty fiber without disassembling the add/drop patch cord. Furthermore, it has been held that constructing a formerly integral structure from various removable elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

With regard to claims 18 and 19, in addition to the rejection of claim 14 previously discussed above, the claimed invention has been disclosed and previously discussed above except for the thin films to be formed from vapor deposition or a film growth process. However, Grassis teaches said filter films can be formed from any known film deposition techniques (at least col. 11 lines 30-44). Vapor deposition and film growth processes are both extremely well known, effective methods for forming such filter layers. Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art to form the thin film layers of Grassis from vapor deposition or a film growth process in order to form effective, reliable filter films.

Claims 4, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grassis as applied to claims 2, 8 and 14 above, and further in view of [USPAT 6,296,400] to Uchiyama et al (“Uchiyama”). Grassis discloses the claimed invention except for the input, drop, add and output fibers are coupled to the casing using solder ferrules. Optical fiber ferrules are commonly used in order to support the tips of optical fibers in coupling arrangements, such as those of Grassis. Furthermore, Grassis teaches that the casing 116 forms a hermetic seal of the environment 114 surrounding the components of the add/drop patch cord (col. 12 line 9). Uchiyama discloses soldering the ferrule of an optical fiber to be advantageous because it hermetically secures the fiber to the housing (col. 2 lines 1-2). Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art to ensure the input, drop, add, and output fibers are all coupled to the casing using solder ferrules in robust and reliable manner, thereby hermetically sealing the closure 116.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: [USPAT 5,786,951] to Scobey, which disclose a related add/drop patch cord device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Stein whose telephone number is (571) 272-2132. The examiner can normally be reached on M-F (8:00am-4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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PRIMARY EXAMINER